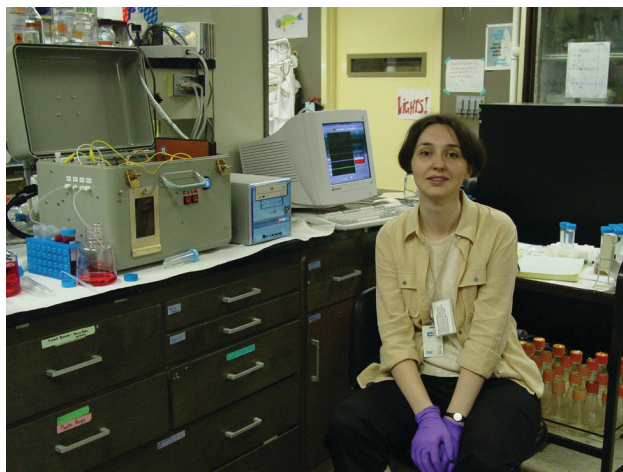


Biotoxin Bulletin



July 2003

The Program Receives a Visit from the Naval Research Laboratory



Dr. Nadezhda (Nadia) Kulagina from the Naval Research Laboratory (NRL) in Washington, D.C. visited the Program in May 2003. She was here because of a collaboration John Ramsdell has with Dr. Joe Pancrazio of NRL. Nadia was working with a neuronal network system that was developed by Professor Guenter W. Gross at the University of North Texas. She was testing several different toxin samples provided by the Program using either spinal cord or frontal cortex cells from mice cultured over this neuronal network. Jen Maucher hosted Nadia's visit, Laurinda Smith provided *Karenia brevis* cultures, Tina Mikulski provided *Alexandrium tamaranse* cultures and Mike Twiner provided purified azaspiracid for the experiments. Nadia was determining how these toxins effect the action potentials of these cells, seen as spikes or bursts (many spikes close together), in order to see if any distinguishable patterns for each toxin emerged, and ultimately be able to use these profiles for rapid toxin detection.

Best Wishes to Sheean Haley as she starts her new position at Woods Hole Oceanographic Institute in Massachusetts.

Comments and Suggestions are Welcome
marine.biotoxins@noaa.gov

Additions For the Summer

Kirsten Brendtro is looking at the accumulation of PbTX in blood of exposed mullet over time and how long it takes to clear the bloodstream once the mullet are removed from exposure. Page Spiess is working on blood spot card samples from Mote Marine lab, as well as some Florida dolphin samples. Page is also working on a protocol for separation of blood lipoproteins. Both Kirsten and Page are working in John Ramsdell's lab. Melissa Samons is working on "the effects of azaspiracid-1 on a human lymphocyte T cell line (Jurkat)" under Mike Twiner. She is investigating AZA's effect on cytoskeleton content and structure (F-actin), apoptosis (programmed cell death) and cytotoxicity in this cell type. Cara Overcash is working in Greg Doucette's laboratory to isolate bacteria that are algicidal to *Karenia brevis*. Lisa Norman is assisting Kate Schaefer with SCPMN.

The Program would like to welcome aboard Jessica Tiedeken who is working in John Ramsdell's Lab.

Bring A Child to Work Day

Kate Schaefer, Heather Blankenstein, Ricky Woofter and Brad Mitchell participated in the 2003 Bring A Child to Work Day at CCHEBR. Kate and Heather entertained the group with a puzzle demonstrating phytoplankton in the marine food web and showed a plankton net with an explanation of how samples are taken. Then the sample was observed on the Mic-D, a digital microscope used for educational purposes. The Fashion-a-Phytoplankton activity allowed the group to create and name their own phytoplankton species. Brad Mitchell and Ricky Woofter conducted a "Mysterious Chemistry Magic Show." Ricky performed while Brad played a most excellent "stooge." The routine was filled with comic wit that young and old enjoyed. The act's finale was a wowing demonstration of a magically rising column of carbon.

Upcoming Events

July 9-18--Fran VanDolah in Sardinia, Italy to present a paper on Marine Toxin Detection at the Marine Risk Assessment Workshop

July 16--Biotoxins Workshop @ CCEHBR

July 21-25--Kate Schaefer & Heather Blankenstein in Wilmington, North Carolina to present SCPMN at the National Marine Educators Association meeting

July 23--Biotoxins Workshop @ CCEHBR

August 6--Biotoxins Workshop @ CCEHBR

August 20--Biotoxins Workshop @ HML

September 3--Biotoxins Workshop @ HML

September 17--Biotoxins Workshop @ HML

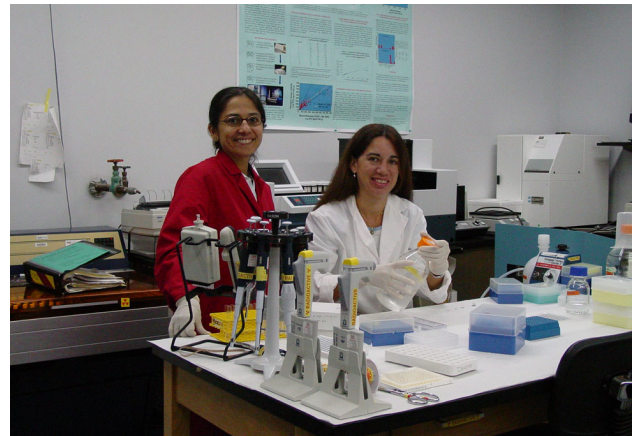
October 1--Biotoxins Workshop @ HML

October 15--Biotoxins Workshop @ HML

October 29--Biotoxins Workshop @ HML

Technology Transfer With Tahiti

Dr. Taiana Darius, a researcher from the Institute Malarde in Tahiti visited the Program as part of its Technology Transfer. While here, she learned receptor binding assays (RBA) in microplate format and also how to run the assay using brevetoxin as a standard. Dr. Darius and Yasmine Bottein successfully applied the technique to ciguatera detection in both *Gambierdiscus toxicus* and fish extracts that Dr. Darius brought from Tahiti. In Tahiti, ciguatera poisoning is a big economical and health problem and they are planning to use the RBA in microplate format for *G. toxicus* bloom surveys as well as fish screening. For more information contact Yasmine Bottein.



For Your Information

CCEHBR Intranet

There is currently a revival of the CCEHBR intranet site in progress. This is a valuable resource that could be more effectively utilized. It would be extremely helpful if you could take a minute to browse the existing site at <http://www.chbr.noaa.gov/StaffOnly/StaffOnlyMain.html>. Any feedback you have would be greatly appreciated. CCEHBR employees who reside in HML can access this site because the site is restricted to only a certain range of IP addresses which means that you should not be able to access the site from outside of the lab. Please send any feedback to kimberly.nowocin@noaa.gov.

Biotoxins Workshops

The summer/fall session of Biotoxins Workshops has begun. If you have a topic you would like to present or would like to see presented, please contact Tina Mikulsi, she is the coordinator for this set of workshops. Also, after you make a presentation, please place a copy of your presentation on Spottail/Biotoxins folder so that others in the program who may have missed your presentation will have a chance to view it.

Manuscript Update Report

Be sure to check out the Manuscript Update to have an idea of what is going on throughout our branch. Also, please contact Tina Mikulski if you have a paper that is in in-house review or that has changed status. All papers can be found on Spottail/Biotoxins.